

REFERENCES

1. A. I. MAREI, G. Ye. NOVIKOVA and N. P. KUZNETSOV, *Kauchuk i rezina*, No. 10, 7, 1964
2. Ye. V. KUVSHINSKII and Ye. A. SIDOROVICH, *Zh. tekhn. fiz.* **27**: 702, 1957
3. V. M. GORELIK, A. I. MAREI, M. F. BUKHINA, G. Ye. NOVIKOVA and B. A. POMIRCHAYA, *Kauchuk i rezina*, No. 11, 13, 1964
4. G. NATTA, G. CRESPI, G. GUZZETTA, S. LEGHISSA and F. SABBIONI, *Rubber and Plastics Age* **42**: 42, 1961
5. J. I. QUINN DEN and F. W. SHIPLEY, *J. Polymer Sci.* **34**: 77, 1959
6. G. S. TRICK, *J. Polymer Sci.* **31**: 529, 1958

STUDY OF THE MOTION OF ALKYL CHAINS IN PLASTICIZERS BY THE IMPULSE METHOD OF NUCLEAR MAGNETIC RESONANCE*

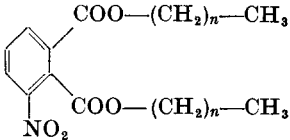
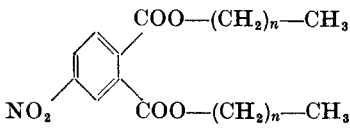
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In a study of the motion in polyacrylates of side groups of the $-\text{COO}-(\text{CH}_2)_n-\text{CH}_3$ type, where $n=1, 2$ or 3 , two low temperature regions of nuclear spin-lattice relaxation were found, one of which corresponds to hindered rotation of the CH_3

TABLE 1. STRUCTURE OF THE MATERIALS STUDIED

Plasticizer	Code	General formula	n^*
Dipropyl-3-nitrophthalate	DP3NP		2
Dibutyl-3-nitrophthalate	DB3NP		3
Dibutyl-4-nitrophthalate	DB4NP		3
Diamyl-4-nitrophthalate	DA4NP		4
Dihexyl-4-nitrophthalate	DHe4NP		5
Diheptyl-4-nitrophthalate	DH4NP		6
Dioctyl-4-nitrophthalate	DO4NP		7
Dinonyl-4-nitrophthalate	DN4NP		8

* n is the number of CH_2 groups in the alkyl part of the molecule.

* *Vysokomol. soyed.* **A11**: No. 11, 2382-2387, 1969.